

# PATENT ABSTRACTS OF JAPAN

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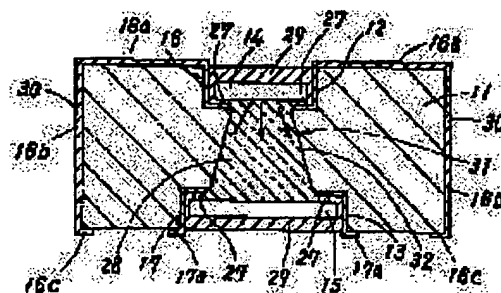
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 (22) Date of filing : 16.01.1992 (72) Inventor : IWASAKI MASARU

## (54) OPTICALLY COUPLED DEVICE

### (57) Abstract:

**PURPOSE:** To reduce thickness and generation of failure due to release and crack of a mold resin by forming a through hole between recessed parts which are provided on both front and rear surfaces of a heat-resistant insulating resin substrate, then providing a solid plated electrode part on the heat-resistant insulating resin substrate, mounting a light-emitting element and a photodetector on it and molding the recessed parts with resin.

**CONSTITUTION:** A plurality of heat-resistant insulating resin substrates 11 are subjected to injected molding in one piece as one large substrate and at the same time recessed parts 12 and 13 and a through hole 31 are formed. Then, solid plating is performed selectively on the recessed parts 12 and 13 and the front and rear surfaces of the heat-resistant insulation resin substrate 11, thus forming electrode parts 16 and 17. Also, the electrode parts 16 and 17 of the recessed parts 12 and 13 are die-bonded by a connection means 27 of a light-emitting element 14 and a photodetector 15. Then, for protecting these, a liquid translucent resin 28 is poured from the spacing between the element 14 and the photodetector 15 and the substrate 11 into a through hole 31 before curing and further a glare-protection resin 29 is filled to the upper-layer part, thus screening a disturbance light. After that, one large heat-resistant insulation resin substrate 11 is cut in nearly rectangular parallelepiped shape.



## LEGAL STATUS

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